

#### REMARKS

Applicant thanks the Examiner for the thorough consideration given the present application. Claims 1-13 are currently being prosecuted. The Examiner is respectfully requested to reconsider the rejections in view of the Amendments and Remarks as set forth hereinbelow.

#### CLAIM FOR PRIORITY

It is gratefully acknowledged that the Examiner has recognized the Applicant's claim for foreign priority. In view of the fact that the Applicant's claim for foreign priority has been perfected, no additional action is required from the Applicants at this time.

#### DRAWINGS

It is gratefully acknowledged that the Examiner has approved the Formal Drawings submitted by the Applicants. The drawings comply with the requirements of the USPTO. No further action is necessary.

#### ACKNOWLEDGEMENT OF INFORMATION DISCLOSURE STATEMENT

The Examiner has acknowledged the Information Disclosure Statement filed on April 26, 2005. An initialed copy of the PTO/SB/08A has been received from the Examiner. No further action is necessary at this time.

### REJECTION UNDER 35 USC 103

Claims 1-13 stand rejected under 35 USC 103 as being unpatentable over Rogers, US 4,583,992, in view of Bohn, WO 87/06680. This rejection is respectfully traversed.

As the Examiner will note, claim 1 has been amended to set forth a combination of elements wherein:

substantially circular slots (9) are formed in the grate wherein the substantially circular slots (9) having the same center point but a varying radius;

annular grate rings (3) are formed in the grate, the annular grate rings (3) are formed between the substantially circular slots (9) with the annular grate ring (3) being stationary with respect to the gasifier;

a mass of balls (2) with a diameter larger than the width of the grate slots are provided with the mass of balls (2) being placed on the grate;

a member (4) mounted below the grate, the member (4) is rotatable about a center axis of the grate;

projections (6) are formed on the member (4) wherein at least some of the projections extend upwardly through the substantially circular slots (9) to a level higher than the top level of the grate, said projections being rotated within said substantially circular slots for selectively imparting movement to said balls.

The Rogers patent discloses a gasifier for continuous conversion of biomass into charcoal and combustible gas. The gasifier includes a grate mounted in a generator for rotation about an essentially upright axis and disposed to receive said biomass thereon. The gasifier further comprises a plurality of stationary members connected to the

generator above the grate and extending into a charcoal (biomass) bed for retarding rotation thereof and breaking the charcoal into separate lumps.

It is clear that the Rogers patent discloses a rotary grate. In contradistinction thereto, in the present invention the grate is stationary and below the grate is mounted a member (4) that is rotatable about the center axis of the grate and is equipped with projections (6), at least some of which extending upward through circular grate slots (9) to a level higher than the top level of the grate. One advantage of the present invention is that it is not necessary to make the grate rotatable. The grate is large and heavy, whereby the rotation of the grate requires a very strong mechanism that consumes a lot of energy.

Bohn discloses a stationary grate with slots that are not substantially circular slots. A grate requires slots in order to function. Bohn also discloses shaking pins mounted in the slots of the grate. However, the pins do not rotate. The pins can only be moved back and forth within a very restricted distance in the slots.

Thus, the combination of the two references relied on by the Examiner only show a movable grate with circular slots with a mass of balls disposed thereon. The combination of the cited references does not teach that below the grate is mounted a member that is rotatable about the center axis of the grate and equipped with projections, at least some of which extending upward through the circular grate slots to a level higher than the top level of the grate.

To establish a prima facie case of obviousness, three basic criteria must be met.

- 1.) First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.
- 2.) Second, there must be a reasonable expectation of success.
- 3.) Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As set forth in section 2143 of the M.P.E.P., the following are examples of basic requirements of a prima facie case of obviousness:

"The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1395-97 (2007) identified a number of rationales to support a conclusion of obviousness which are consistent with the proper "functional approach" to the determination of obviousness as laid down in *Graham*. The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit."

One of these exemplary rationales that may support a conclusion of obviousness set forth in subparagraph "C" relates to use of known technique to improve similar devices (methods, or products) in the same way.

"To reject a claim based on this rationale, Office personnel must resolve the *Graham* factual inquiries. Then, Office personnel must articulate the following:

(1) a finding that the prior art contained a "base" device (method, or product) upon which the claimed invention can be seen as an "improvement;"

(2) a finding that the prior art contained a "comparable" device (method, or product that is not the same as the base device) that has been improved in the same way as the claimed invention;

(3) a finding that one of ordinary skill in the art could have applied the known "improvement" technique in the same way to the "base" device (method, or product) and the results would have been predictable to one of ordinary skill in the art; and

(4) whatever additional findings based on the Graham factual inquiries may be necessary, in view of the facts of the case under consideration, to explain a conclusion of obviousness.

The rationale to support a conclusion that the claim would have been obvious is that a method of enhancing a particular class of devices (methods, or products) has been made part of the ordinary capabilities of one skilled in the art based upon the teaching of such improvement in other situations. One of ordinary skill in the art would have been capable of applying this known method of enhancement to a "base" device (method, or product) in the prior art and the results would have been predictable to one of ordinary skill in the art. The Supreme Court in KSR noted that if the actual application of the technique would have been beyond the skill of one of ordinary skill in the art, then using the technique would not have been obvious. KSR, 550 U.S. at \_\_\_, 82 USPQ2d at 1396. If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art." (emphasis added)

The Applicant respectfully submits that the Examiner has failed to articulate each and every one of items (1) to (4) above as is required.

In view of the above, the Applicant respectfully submits that the Examiner has failed to establish a prima facie case of obviousness.

Therefore, independent claims 1-13 are in condition for allowance.

In addition, the Applicant respectfully submits that the proposed modification by the Examiner of the Rogers patent in view of Bohn renders the Rogers patent unsatisfactory for its intended purpose and thus is not sanctioned by the provisions of 35 U.S.C. § 103. The Rogers

patent discloses a movable grate which would be rendered unsatisfactory if the "shaking pins" of Bohn are used to modify the disclosure of Rogers.

### REQUEST FOR INTERVIEW

If the Examiner has any questions with regard to this application please contact the undersigned so that an interview can be arranged in connection with this application.

### CONCLUSION

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination.

Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but to merely show the state of the art, no comment need be made with respect thereto.

In view of the above amendments and remarks, reconsideration of the rejections and allowance of all of the claims are respectfully requested.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. A full and complete response has been made to the outstanding Office Action. The present application is now in condition for allowance.

A prompt and favorable consideration of this Amendment is respectfully requested.

Pursuant to the provisions of 37 CFR 1.17 and 1.136(a), Applicant respectfully petitions for a three (3) month extension of time for filing a response in connection with the present application. The required fee is attached hereto.

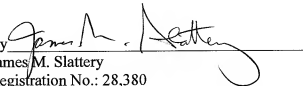
Application No. 10/532,829  
Amendment dated March 4, 2009  
Reply to Office Action of September 8, 2008

Docket No.: 1503-0176PUS1  
Art Unit: 1795  
Page 13 of 13

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: March 4, 2009

Respectfully submitted,

By   
James M. Slattery  
Registration No.: 28,380  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Road  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant